

BEST AVAILABLE COPY**REMARKS**

The present application has been amended in response to the Examiner's Office Action to place the application in condition for allowance. Applicant, by the amendments presented above, has made a concerted effort to present claims which clearly define over the prior art of record, and thus to place this case in condition for allowance.

In the Office Action, the Examiner rejected claims 1-7 under 35 U.S.C. § 103(a) as being unpatentable over United States Patent No. 6,334,249 (Hsu) in view of United States Patent No. 6,143,645 (Hsu et al.). Each of the independent claims have been amended to further distinguish the claimed invention from that which is disclosed in the cited references.

Specifically, claims 1 and 3 have been amended to specifically claim polishing the copper level with the interconnect liner layer and at least one dielectric layer of the substrate. Independent claim 6 has been similarly amended, but is directed towards an apparatus. Applicant submits that this is neither disclosed or suggested by the prior art of record. As such, Applicant respectfully submits that claims 1, 3 and 6 are allowable over the cited references.

Because each of the independent claims, i.e., claims 1, 3 and 6, are patentable over the references cited by the Examiner, Applicant submits that those claims which depend therefrom, i.e., claims 2, 4, 5 and 7, are also patentable over the prior art for at least the same reasons. Applicant therefore respectfully requests that this application be passed to issuance.

The Examiner points out that Hsu ('249) does not disclose polishing. However, the Examiner asserts that Hsu ('249) discloses that the upper layer has a degree of planarity, and that it would have obvious to planarize by polishing. Applicant respectfully asserts that while it may

Serial No.: 10/615,042
Art Unit: 2815
Page 5

BEST AVAILABLE COPY

have been obvious to smooth the top layer 240 of Hsu ('249) by polishing, there is no disclosure in Hsu ('249) or suggest to polish the copper layer so far down that it becomes level with the interconnect liner layer and at least one dielectric layer of the substrate. Applicant respectfully asserts that to take the position that the references disclose or suggest this would amount to hindsight. There are many court decisions which hold that using hindsight is improper.

Additionally, even when changes from the prior art are "minor" or "simple", an inquiry must be made as to whether "the prior art provides any teaching or suggestion to one of ordinary skill in the art to make the changes." Monarch Knitting Mach. Corp. v. Sulzer Morat GmbH, 139 F.3d 877, 45 USPQ2d 1977, 1981 (Fed. Cir. 1998) (quoting Northern Telecom, Inc. v. Datapoint Corp., 908 F.2d 931, 935, 15 USPQ2d 1321, 1324 (Fed. Cir. 1990)). Applicant respectfully submits that there is no suggestion to combine, and then modify, the cited references in order to arrive at the present invention as now claimed.

In view of the above amendments and remarks, Applicant respectfully submits that the claims are allowable over the prior art of record, and respectfully requests that the application be passed to issuance.

Serial No.: 10/615,042
Art Unit: 2815
Page 6

BEST AVAILABLE COPY

Should the present claims not be deemed adequate to effectively define the patentable subject matter, the Examiner is respectfully urged to call the undersigned attorney of record to discuss the claims in an effort to reach an agreement toward allowance of the present application.

Respectfully submitted,

Date: August 15, 2006

By: 

James R. Foley, Reg. No. 39,979
Trexler, Bushnell, Giangiorgi,
Blackstone & Marr, Ltd.
105 West Adams Street, 36th Floor
Chicago, Illinois 60603-6299
Tel: (312) 704-1890

9A5409.WPD

Serial No.: 10/615,042
Art Unit: 2815
Page 7